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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,087	10/15/2001	Martin F. Yanofsky	19452A-000940US	9499

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EXAMINER

MEHTA, ASHWIN D

ART UNIT	PAPER NUMBER
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1638

14

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,087

Applicant(s)

YANOFSKY ET AL.

Examiner

Ashwin Mehta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40 and 66-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40 and 66-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 and 14 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. The objection to the brief description to Figure 2, and to Figures 5 and 8 are withdrawn, in light of the amendment to Figure 5 and the brief description to Figure 2, and the cancellation of Figure 8.
3. The rejection of claims 40, 65, and 67-78 under 35 U.S.C. 112, 1st paragraph, for lack of sufficient written description, is withdrawn in light of the claim amendments and the declaration submitted 14 July 2003.
4. The rejection of claims 40, 65, and 66 under 35 U.S.C. 102(b)/103(a) is withdrawn, in light of the claim amendments.

Double Patenting

5. Claims 40 and 66-78 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,541,683. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons of record stated in the Office action mailed 12 February 2003 under item 2. This

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rejection replaces the provisional rejection in the previous Office action, as the co-pending application has issued as the aforementioned patent.

In the paper submitted 14 July 2003, Applicants indicate that they will provide a terminal disclaimer upon indication that the claims are otherwise allowable (page 8, 3rd full paragraph).

Applicants' intent is acknowledged. As the claims are not otherwise in condition for allowance, the rejection is maintained.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 40, and 66-74 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 40 and 75: the claims indicate that that exogenous nucleic acid encodes a polypeptide fragment at least 75% identical to the K, I, or C domains of SEQ ID NO: 1.

However, SEQ ID NO: 1 is a nucleic acid sequence, not an amino acid sequence.

In claims 67 and 68: the claims indicate that a polynucleotide encoding a polypeptide at least 75% identical to SEQ ID NO: 2 is introduced into a plant, in sense or antisense orientation. It is not clear if this is in addition to the exogenous nucleic acid recited in claim 40.

7. Claims 40, 66, and 69-74 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention, for the reasons of record stated in the Office action mailed 12 February 2003 under item 4. Applicants traverse the rejection in the paper submitted 14 July 2003. Applicants' arguments were fully considered but were not found persuasive.

Applicants argue that the amended claims involve introduction of an exogenous nucleic acid into a plant, thereby encompassing cosuppression and antisense methods (response, page 8, 5th full paragraph). However, the specification does not teach that expression in transgenic plants, in sense or antisense orientation, of exogenous nucleic acids encoding polypeptide fragments that differ from the K, I, or C domains of SEQ ID NO: 2 suppressed an AGL8-like gene product and enhanced lignification. As discussed in the last Office action, many proteins that have functions that differ from that of AGL8, also comprise the K, I, and C domains. It is not clear how expression of a nucleic acid encoding one of these domains would only suppress the expression of an AGL8-like gene, and not other genes whose products also have the domain. It is unknown what the phenotype would be of a plant in which expression of all genes, whose products have K, I, or C domains, have been suppressed. Further, the specification does not teach the amino acids of SEQ ID NO: 2 that make up the I and C domains. One skilled in the art then cannot determine the percent identity of the exogenous nucleic acid with these domains in SEQ ID NO: 2. Furthermore, page 20 of the specification indicates that I-domains have a variable length of approximately 30 amino acids and that K-domains are 70 amino acids in length. A nucleic acid molecule of 50 nucleotides could encode polypeptide that is 16 amino acids in length, and so could not encode a polypeptide fragment having at least 75% identity to

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the K- or I-domain. The specification teaches that the size of the C-domain is variable (page 20).

The minimum size is unknown, and the sequence of the C-domain of SEQ ID NO: 2 is not taught.

Summary

8. No claim is allowed.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

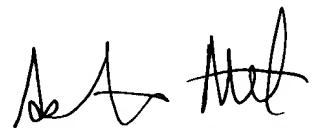
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Contact Information

Any inquiry concerning this or earlier communications from the examiner should be directed to Ashwin Mehta, whose telephone number is 703-306-4540. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays from 8:00 A.M to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at 703-306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 and 703-872-9306 for regular communications and 703-872-9307 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

September 23, 2003


Ashwin D. Mehta, Ph.D.
Primary Examiner
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